

DRAFT Monitoring and Testing Requirements

Compliance Requirements						
Compliance Parameter	Effectiveness Criteria	Monitoring Action	Recordkeeping	Agency for Reporting Submission	Reporting Frequency	Reporting Date
Marine Loading Rate (short-term)	For use in short-term emission rate calculation.	Monitor and record the hourly throughput of crude oil loaded through the SPM during the duration of VLCC loading	Data Historian at Onshore Terminal	EPA Region 6	Annual	45th day of month following anniversary of permit issuance.
Marine Loading Rate (long-term)	Rolling 12-month throughput less than or equal to 192,000,000 bbl/yr	Monitor and record the rolling 12-month throughput of crude oil through the SPM on a monthly basis.	Data Historian at Onshore Terminal	EPA Region 6	Annual	Calculate rolling 12-month total by the 15th day of the following month. Submit report to EPA annually within 45 days of permit anniversary.
Crude Oil Temperature	For use in emission rate calculations.	Monitor and record the temperature of crude oil at the SPM during VLCC loading.	Data Historian at Onshore Terminal	EPA Region 6	Annual	Calculate rolling 12-month average by the 15th day of the following month. Submit report to EPA annually within 45 days of permit anniversary.
Crude Oil Properties	<p>TGTI should test for and record properties of the crude oil being loaded that are indicative of or used in the calculation of emissions from VLCC loading operations. Testing should be designed such that the liquid and vapor properties can be determined or calculated from the results. Properties to be tested for include the following:</p> <ol style="list-style-type: none"> 1) Reid Vapor Pressure 2) Molecular Weight, liquid 3) Specific Gravity 4) Speciation of VOC Compounds, liquid 5) Speciation of HAP Compounds, liquid 6) H₂S 7) Total Sulfur, liquid 	<p>Test and record properties of the crude oil being loaded using methods approved by EPA. The crude oil should be sampled at the onshore tank farm from a location that provides a representative sample of the crude being loaded at the VLCC. TGTI shall submit a protocol for testing to EPA at least 60 days in advance. The protocol should identify methods to be used to quantify each of the required parameters. For subsequent tests, TGTI may use a previously submitted protocol if testing will be conducted following the same procedures.</p>	Test Report Submitted to EPA	EPA Region 6	Annual	Testing should be conducted at a frequency of no less than annually. Annual sample shall be taken no more than 13 months but no less than 9 months following the previous sample date and report shall be submitted to EPA within 60 days of sample acquisition. If loading of vessels prohibits a sample from being acquired in that timeframe, a sample shall be acquired during the loading of the next vessel after the 13 month timeframe. In this event, TGTI shall submit notification to EPA of the scheduling conflict at least 15 days prior to the end of the 13 month timeframe.
Rolling 12-Month Emissions	Rolling 12-month emissions (ton per year) less than or equal to permit representations	Calculate rolling 12-month emissions from marine vessel loading by the 15th of each month using Equation 1 of AP-42 Chapter 5.2 (06/08)	Report submitted to EPA	EPA Region 6	Annual	Calculate rolling 12-month total emissions by 15th day of the following month and submit report to EPA annually within 45 days of permit anniversary.